IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

May 25, 2003

Applicant: Steven A. Benner
Title: Evolution-based Functional Genomics
Serial number: 09/640709
Filing date: August 08, 2000
Examiner. Michael Borin

AMENDMENTS TO THE SPECIFICATION

Dear Sir:

Responsive to an Office Action mailed November 27, 2002, Paper 2 in the case, please delete the abstract and replace it with the following abstract.

Abstract of the Disclosure

The invention concerns methods for applying evolutionary analyses to a set of aligned homologous protein sequences for the purpose of predicting a consensus model for the folded secondary structure of a protein family, identifying distant homologs and denying distant homology, assigning functional behavior to protein families, identifying protein pairs that interact as they function, identifying episodes of sequence evolution where functional behavior within a family is changing, and identifying specific chemical units of the protein that change in concert with changes in functional behavior. Accordingly, this invention is relevant to the use of genomic information to understand homology, fold, behavior and function in proteins.

This abstract is also provided on a separate sheet.

This constitutes a verified statement that the amendment contains no new material.

Sincerely,

Steven A. Benner
Applicant/Inventor
1501 NW 68th Terrace
Gainesville Florida 32605-4147
Tel: (352) 332 2262   (352) 219 3570
Fax: (352) 331 0462
email: sbenner@bellsouth.net